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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,516	07/16/2001	Nathalie Mougin	P 0281573 B00/2208 US	2271

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PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER	
WANG, SHENGJUN	
ART UNIT	PAPER NUMBER
1617	

MAIL DATE	DELIVERY MODE
12/11/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/904,516	MOUGIN ET AL.	
	Examiner	Art Unit	
	Shengjun Wang	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19,23,24 and 30-37* is/are pending in the application.

4a) Of the above claim(s) *1-17 and 34* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18,19,23,24,30-33,35-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Receipt of applicants' amendments and remarks submitted September 2, 2008 is acknowledged.

Double Patenting Rejections

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 18, 19, 23, 24, 30-33 and 35-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of U.S. Patent No. 7,108,726. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims herein are generic to the claims in '726, as '726 claims a particular cosmetic composition comprising the polymers herein.

3. Claims 18, 19, 23, 24, 30-33 and 35-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-54 of U.S. Patent No. 7,101,405. Although the conflicting claims are not identical, they are not patentably distinct

from each other because the claims herein are generic to the claims in '405, as '405 claims a particular cosmetic composition comprising the polymers herein.

4. Claims 18, 19, 23, 24, 30-33 and 35-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-58 of U.S. Patent No. 7,066,965. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims herein are generic to the claims in '965, as '965 claims a particular cosmetic composition comprising the polymers herein.

5. Claims 18, 19, 23, 24, 30-33 and 35-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-71 of U.S. Patent No. 7,077,869. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims herein are generic to the claims in '869, as '869 claims a particular cosmetic composition comprising the polymers herein.

6. Claims 18, 19, 23, 24, 30, 32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 41-90 of copending Application No. 10/432038. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims herein are generic to the claims in '869, since '038 claims a particular cosmetic composition comprising the polymers herein.

7. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 18, 19, 23, 24, 30-33 and 35-37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 41-90 of U.S. Patent No. 7,108,726. Although the conflicting claims are not identical, they are not patentably distinct

from each other because the claims herein are generic to the claims in '726 because '726 claims a particular cosmetic composition comprising the polymers herein.

Claim Rejections 35 U.S.C. 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 18, 19, 23, 24, 30-33 and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Samour et al. (US 5,807,957).

Samour et al teach cationic hydrocarbon terminated polyurethane represented by formula (I), and cosmetic composition comprising the same. It is noted that in formula (I), m=0, Y1 and Y2 may be ammonium moiety. See, particularly, the claims. The polyurethane also contains hydrophilic moiety, such as polyethylene oxide, polypropylene oxide. See, particularly, the abstract, col.2, 1ine 44 through col. 5 for the cationic polyurethane. See also col.6, 11 5 through col.9. See col. 10, for the preparation of hydrophobic terminated cationic polyurethanes. See col.11, 11 33-36 for the weight percent of the polymer, and the claims. It is noted that molecular weight of the cationic polyurethane is about 1,000 to 30,000 (col. 4, lines 4-20). The polyurethane in the claimed invention, which has ammonium at both terminal, and polyethylene oxide as the hydrophilic moiety, would have been at once envisioned by of ordinary skill in the art. As to the recited physical properties herein "water dispersible," "substantially water soluble or forms a gel in water", note a chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, i.e., a polyurethane with hydrophilic moieties, the

properties Applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990. See MPEP 2112.01. The burden is shifted to Applicant to show that the prior art product does not inherently possess the same properties as instantly claimed product.

Claim Rejections 35 U.S.C. 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 18, 19, 23, 24, 30-33 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 6,335,003) and Samour et al. (US 5,807,957) (note claim 31 was inadvertently omitted in the prior action).

13. The elected inventions read on cosmetic composition comprising a cationic polyurethane produced by the reaction of at least two diisocyanate and at least one polyethylene glycol, wherein the cationic ammonium groups are with a hydrophobic groups and are at the terminals of the polyurethane.

14. Kim et al. teaches the employment of a cationic polyurethane in cosmetic preparation, wherein the polyurethane may be prepared by the reaction of at least one diisocyanate and at least one amino alcohol, diamine or triamine, wherein the diisocyanate may be alkylene, cyclic alkylene, diisocyanates, or reaction product of those basic diisocyanate with diol, diamino

groups. The diol may be polyethylene glycol, polypropylene glycol with molecular weight up to 2000. See, particularly, col. 2, lines 15-58, and the claims. The amine groups in the polyurethane may be quaternized before use. The anion may be chloride, bromide, and iodide. Groups attached to the cationic nitrogen may be C1-4 alkyl groups, or C7-10 phenyl alkyl groups, meeting the limitation of hydrophobic group herein required. Further, as is customary in the making of polyurethane, chain extender, such as diamino compounds, may be used. See, particularly, col. 4, line 33 to col. 5, line 33.

Samour et al teach cationic hydrocarbon terminated polyurethane for cosmetic composition. The polyurethane also contains hydrophilic moiety, such as polyethylene oxide, polypropylene oxide. See, particularly, the abstract, col.2, 1ine 44 through col. 5 for the cationic polyurethane. See also col.6, 11 5 through col. 9. See col. 10, for the preparation of hydrophobic terminated cationic polyurethanes. See col.11, 11 33-36 for the weight percent of the polymer, and the claims. It is noted that molecular weight of the cationic polyurethane is about 1,000 to 30,000 (col. 4, lines 4-20).

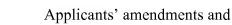
Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to make a polyurethane as taught by Kim et al. with cationic ammonium groups at the terminals of the polyurethane.
A person of ordinary skill in the art would have been motivated to make a polyurethane as taught by Kim et al. with cationic ammonium groups at the terminals of the polyurethane because making cationic polyurethane by quaternizing terminal groups is a known method in the art. Absent evidence to the contrary, such quaternizing method is seen as an obvious engineering choice to one of ordinary skill in the art. As to the limitation of molecular weight, it is noted that

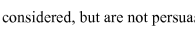
Kim require at least one diisocyanate and at least one diol, or diamino, and about 50 to 200 noncationic nitrogens, or about 20 to 100 of basic diisocyanates. Therefore, the molecular weight of the polyurethane of Kim et al. would be within the range of the claimed invention (1000 to 300,000), assuming the molecular weight of basic diisocyanate is about 200 and the molecular weight diol and/or diamino is about 200. As to the recited physical properties herein "water dispersible," "substantially water soluble or forms a gel in water", note a chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, i.e., a polyurethane with hydrophilic moieties, the properties Applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990. See MPEP 2112.01. The burden is shifted to Applicant to show that the prior art product does not inherently possess the same properties as instantly claimed product.

Response to the Arguments

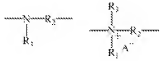
Applicants' amendments and remarks submitted September 2, 2008 have been fully considered, but are not persuasive.

Applicant assert that Samour et al. require alkyleneoxy between an amine or ammonium group and diisocynate group, which is not required in instant claims. The assertion is incorrect. The claims herein drawn to a cosmetic composition comprising a polyurethane of formula (I):


(I) Wherein L and L' represent the formula:


in which Z represents –O-, -S-, or –NH-. It is further noted that the amine or ammonium group X as herein required encompass any groups that contain an amine

or ammonium groups, (see, e.g., claims 35 -37), and do not excluding amine or ammonium groups -NR-$(CH_2CH_2O)_n$- employed by Samour et al.

For example, Claim 35 recites X or X' is 

in which:

R_2 represents a linear or branched alkylene radical having from 1 to 20 carbon atoms, which optionally may comprise a saturated or unsaturated ring, or an arylene radical, wherein one or more carbon atoms optionally is replaced by a heteroatom selected from the group consisting of N, S, O and P.

Therefore, R2 herein would read on -$(CH_2CH_2O)_n$- as recited by Samour et al.

15. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

16. Applicants assert that Kim is silent as to chaining of the monomer. The arguments are not persuasive. Note, Kim particularly teach the employment of diisocyanates, or *reaction product of those basic diisocyanate with diol, diamino groups*. As discussed in the rejections, in view of cited references as a whole, make a polyurethane with cationic ammonium groups at the terminals of the polyurethane would have been obvious.

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang whose telephone number is (571) 272-0632. The examiner can normally be reached on Monday to Friday from 7:00 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Shengjun Wang/
Primary Examiner, Art Unit 1617